

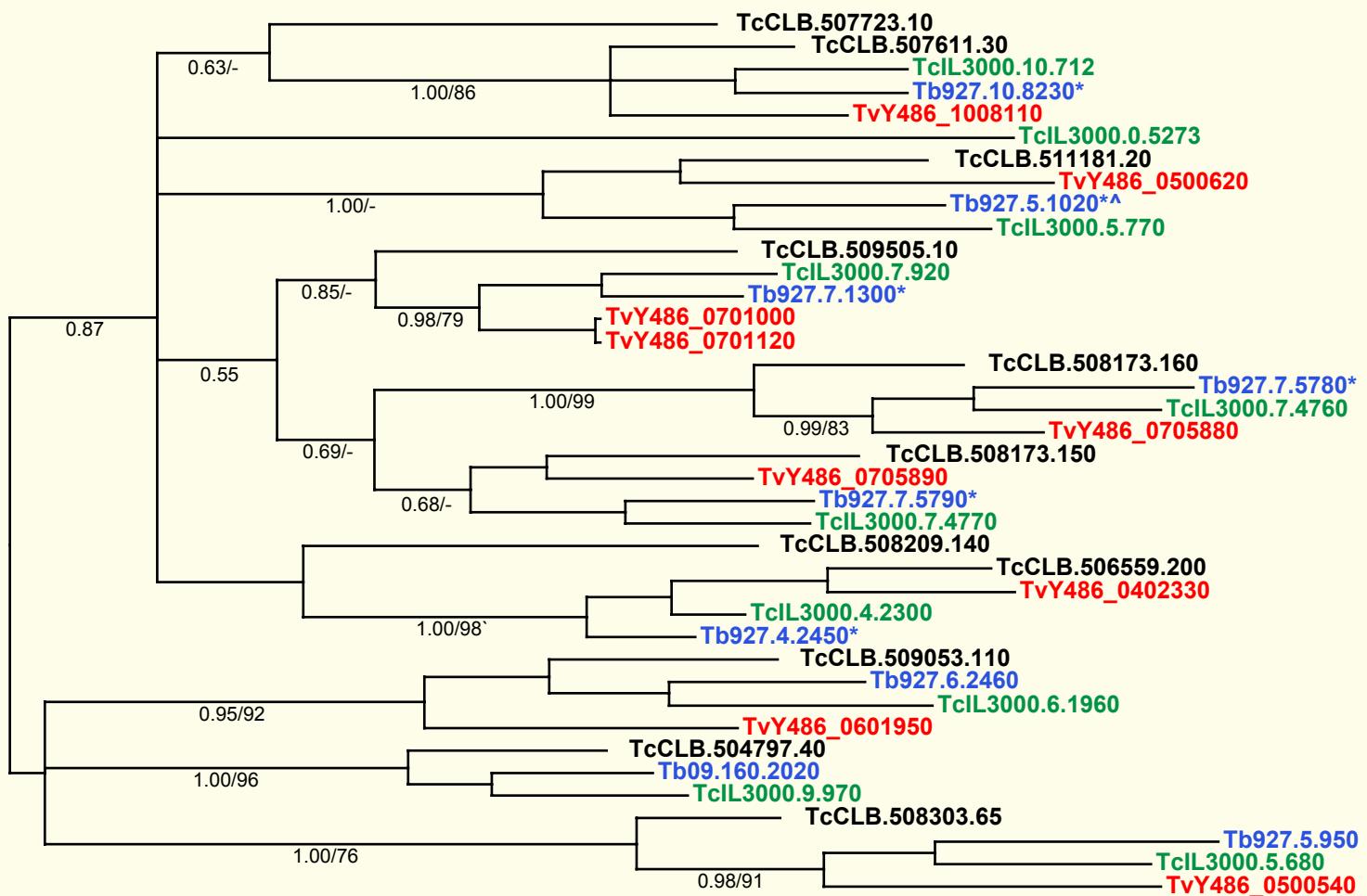
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Jackson, AP et al. 2012. A cell surface phylome for African Trypanosomes. *Manuscript submitted.*



# Fam64: Protein disulfide isomerase (thioredoxin-like)

Key: Tb927.  
*T. brucei*  
TvY486\_  
*T. vivax*  
TcIL3000.  
*T. congolensis*  
TcCLB.  
*T. cruzi*



**NOTES:** **Fam64** comprises protein disulfide isomerase genes encoding proteins with thioredoxin folds. Some of these genes encode proteins with predicted signal peptides (*T. brucei* orthologs to these are marked with an asterisk), and one locus encodes a protein with both signal peptide and a predicted transmembrane domain towards the C-terminal (*T. brucei* ortholog is marked ^).

The Bayesian phylogram was estimated from a multiple nucleotide sequence alignment of 297 characters, using MrBayes under default settings. There is substantial length variation between these loci and the alignment corresponds to the shared thioredoxin-like domain. The tree is mid-point rooted. Selected nodes are supported by posterior probabilities and non-parametric bootstraps generated from a maximum likelihood analysis under a GTR+ $\Gamma$  model.